Loch Kemp Storage - EIA Report

Volume 4, Appendix 3.2: Schedule of Mitigation

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Volume 4, Appendix 3.2: Schedule of Mitigation

1.1 Introduction

1.1.1 The purpose of this Volume 4, Appendix is to provide a summary of mitigation measures proposed throughout this EIA Report, to minimise or offset the potential effects of the Proposed Development on the receiving environment.

1.1.2 During the construction phase, these shall be detailed within and implemented through the site-specific Construction Environmental Management Plan (CEMP), refer to **Volume 4, Appendix 3.3: Outline CEMP** of this EIA Report.

1.1.3 Table 1 below provides a summary of those mitigation measures identified throughout the EIA Report.

Table 1 – Mitigation Measures Identified within EIA Report

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
General Mitigation				
G1	Environmental Management	Prior to construction works, sensitive ecological areas, and other specific sensitive locations (e.g. cultural heritage assets, watercourses) would be marked out as appropriate on site by specialist advisers (e.g. the Ecological Clerk of Works (ECoW)) in order to avoid unnecessary encroachment and protect sensitive areas during construction. A Landscape Clerk of Works and an Architect would also be involved during the detailed design and construction phases of the Proposed Development where required, to ensure the key principles of the design mitigation are realised. The Principal Contractor would ensure that no vehicle movements or other activities take place outwith the approved working area.	3.12.1, 8.8.6, 14.7.26 – 14.7.27	Contractor / ECoW
G2	Micro-siting	There may be a requirement to microsite elements of the Proposed Development as a result of additional constraints encountered during site works shown on **Volume 2, Figure 3.1: Proposed Development**. Any micro-siting would require agreement of the specialist advisors (e.g. the ECoW) as appropriate.	3.12.2	Contractor / ECoW / Other specialist advisers
G3	Construction Environmental Management	A Construction Environmental Management Plan (CEMP) would be prepared for the Proposed Development. The CEMP would apply to all construction activities required as part of the proposals. In particular, the CEMP would specify conditions relating to protection of habitats and species, pollution prevention and the means by which site monitoring would occur. The final site-specific CEMP would be secured by a condition of consent, and would be prepared by the Applicant and Principal Contractor, in consultation and agreement with THC, Scottish Environment Protection Agency (SEPA), and NatureScot. An **outline CEMP** is provided in **Volume 4, Appendix 3.3** of this EIA Report.	3.12.3, Volume 4, Appendix 3.3: Outline CEMP 11.8.2, 14.7.22 – 14.7.25	Applicant / Contractor
G4	Site Environmental Management	The Principal Contractor would have overall responsibility for environmental management on the Site. The services of specialist advisors, such as the project ECoW, would be retained as appropriate to be called on as required to advise on specific issues. The Principal Contractor and the Applicant would ensure construction activities are carried out in accordance with best practice, relevant environmental legislation, the mitigation measures outlined in this EIA Report and those detailed in the Approved CEMP.	3.12.5 Volume 4, Appendix 3.3: Outline CEMP	Applicant/ Contractor / ECoW

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
G5	Waste Mangement	It is anticipated that any excavated material generated during the works, would be re-used on site. Any materials to be removed from site (packaging etc.) would be segregated on site and removed to suitable recycling facilities or disposed of to a suitably licensed waste management facility, in accordance with current waste management regulations. A Waste Management Plan would be provided as part of the CEMP.	3.12.7, Volume 4, Appendix 3.3: Outline CEMP Volume 4, Appendix 3.4: Outline Spoil Management Plan Volume 4, Appendix 14.1: Peat Management Plan	Contractor
G6	Site Reinstatement	Reinstatement works would generally be undertaken during construction (and during the immediate post-construction phase) and would aim to restore areas of ground disturbance and changes to the landscape as part of the construction works. Reinstatement would be undertaken as soon as practical following the construction works in each area, such as the re-dressing of road and track verges (and other areas that may be disturbed as a result of the construction process). A Site Reinstatement Plan would be provided by the Principal Contractor as part of the CEMP.	3.12.8 to 3.12.11 8.8.3 Volume 4, Appendix 3.1: Design and Sustainability Statement	Contractor
G7	Habitat Management	A Habitat Management Plan (HMP) will be implemented as part of the Proposed Development to compensate for the direct and indirect loss of sensitive natural/semi-natural habitats (excluding Ness Woods SAC compensatory measures), notably blanket bog and heath, as a result of construction of the Proposed Development. An Outline HMP is included in **Volume 4, Appendix 10.7.**	3.12.12 Volume 4, Appendix 10.7: Outline Habitat Management Plan (non-SAC)	ECoW
G8	Construction Hours	It is anticipated that surface works would generally be undertaken between 07.00 and 19.00 hours Monday to Saturday, and 07.00 to 15.00 hours on Sunday. Any underground operations, supporting vehicle movements and continuous pouring of concrete would need to continue 24 hours a day, seven days a week inclusive of bank	3.13.1 – 3.13.3	Contractor

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
		holidays. In the event of surface work being required outwith these hours, e.g., abnormal load deliveries, commissioning works or emergency mitigation works, the Planning Authority would be notified prior to these works taking place, wherever possible. Any surface blasting on site would only take place between the hours of 09.00 to 17.00 on Monday to Friday inclusive and 10.00 to 12.00 on Saturdays, Sundays and on National Public Holidays, unless otherwise approved in advance in writing by the Planning Authority. Underground operations and other agreed works that would continue to take place outwith normal surface working hours would have strict measures in place to ensure that any noise is mitigated for receptors above ground.		
G9	Community Liaison	Ongoing engagement with the local community during the construction of the Proposed Development would be an important consideration for the Applicant and the Principal Contractor. A community liaison group would be set up to provide the local community with information about the timing of key construction activities and a mechanism by which concerns from within the local community could be shared and discussed.	3.13.6, 9.9.8 16.11.14, 16.11.17, Volume 4, Appendix 16.1: Transport Assessment	Applicant
G10	Construction Lighting	Vehicle access into / out of the tunnel portal outside of surface working hours would be minimised to limit the use of lighting during these hours and appropriate mitigation would be implemented to minimise illumination, glare or light spillage from these lights to nearby receptors.	3.14.1	Contractor
Water Management				
WM	Water Levels in Loch Ness	The Proposed Development would only operate between agreed minimum and maximum levels of Loch Ness. These shall be within the operating ranges of existing and consented PSH schemes on Loch Ness to avoid additional impact to the extremes of level in Loch Ness. A stop generating level is proposed to protect against adverse impacts in terms of flooding when the Loch Ness level exceeds the estimated 1-in-10 year flood. A stop pumping level is proposed to prevent operation during extreme low loch levels in Loch Ness to safeguard operation of the Caledonian Canal and for other water users and to maintain a compensatory flow over Ness Weir.	Chapter 7, 7.1.5, 7.9.1, 7.9.2 13.7.7 – 13.7.10 Volume 4, Appendix 7.1: Loch Ness PSH – hydrological modelling Technical Note	Applicant

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
WM	Compensation Flow / Outflow from Loch Kemp to the Allt an t-Sluichd	The Proposed Development would release compensation flow from the foot of Dam 1 on the Allt an t Sluichd, which is the natural outlet of Loch Kemp. The flow would be regulated to mimic the natural conditions in the burn at a volume to be agreed with SEPA as part of the CAR license. This outflow would also be maintained during construction.	7.1.4, 7.6.1 – 7.6.2 12.7.2, 14.7.3	Applicant
WM	Residual Flow in Allt an t-Sluichd below Dam 1 (during construction)	In addition to compensation release, the flow below Dam 1 would be maintained during the construction period to ensure the natural flow downstream would be maintained whilst the dam is constructed. Once construction is complete, the bottom outlet would continue to be used in the operation phase for compensation flow release.	7.7.1 – 7.7.3	Applicant / Contractor
Mitigation for Land Use and Recreation				
LUAR 1	Outdoor Access Management	An Outdoor Access Management Plan (OAMP) would be implemented by the appointed Principal Contractor. The Outline OAMP would be reviewed and updated as necessary prior to commencement of construction works. Thereafter, the approved OAMP would be a live document and reviewed annually during the construction period. In addition, reviews would be conducted prior to the commencement of works which may impact upon public access or have the potential for public / contractor interfaces.	9.9.5, 9.9.6 20.8.3 – 20.8.4 Volume 4, Appendix 9.1: Outline OAMP	Contractor / Applicant
Mitigation for Terrestrial Ecology				
TE 1	Ecological Clerk of Works (ECoW)	A suitably qualified ECoW or ECoW team would be employed for the duration of the construction and reinstatement periods, to ensure natural heritage interests are safeguarded. The role of the ECoW would include (but not be limited to) the following tasks: Give toolbox talks to all staff on-site, e.g an ecological induction so staff are aware of the ecological sensitivities on the Site and the legal implications of not complying with agreed working practices Agree and monitor measures designed to minimise damage to retained habitats, including marked out Route Protection Areas(RPA) Undertake pre-construction surveys and advise on ecological issues where required	10.7.4, 10.7.19 - 10.7.20	ECoW

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
		Pre-construction inspections of areas which require species-specific mitigation and supervision of relevant mitigation and supervision of relevant mitigation measures, including erecting appropriate exclusion zones around protected species resting places Oversee implementation of a Biosecurity Management Plan Supervise sensitive works within Ness Woods SAC, particularly where working in close proximity to sensitive bryophyte and lichen areas, including veteran hazels and birch trees Mark out lichen species *Stereocaulon glareosum* and *Micarea ternaria* on the track for protection, to facilitate track micro-siting The ECoW would also undertake additional roles such as assisting with water quality monitoring and / or checking for nesting birds.		
TE 2	Vegetation and Habitat Reinstatement	Good practice techniques would be adopted and implemented on areas disturbed during construction (outside of the inundated zone). This would include excavated materials being stored according to good practice taking care to separate turves, topsoils, soils and peat layers. Reinstatement would ensure that turves are replaced on the surface.	10.7.5	ECoW
TE 3	Bryophytes and Lichens	To minimise damage to bryophyte interest, care would be taken during construction to minimise the disturbance to the rocks close to the Loch Ness shoreline in the proposed powerhouse area, the boulder scree above the proposed powerhouse, and the low northwest-facing rocks above the beach in the proposed powerhouse area, as far as possible. Disturbance to sheltered rotten logs and rock outcrops would also be avoided or minimised wherever possible. An ECoW would supervise all works in the vicinity of veteran hazels and birch trees. Appropriate barriers would be used to define working corridors and all trees to be retained. Appropriate buffer zones would be implemented when erecting barriers to avoid inadvertent damage from heavy machinery/plant manoeuvring.	10.7.10, 10.7.19	ECoW

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
TE 4	Construction light on sensitive habitats	Temporary construction lighting would be restricted to the minimum required. Construction lighting details would be provided in the final CEMP. Lighting would be directed away from sensitive habitats including woodlands and waterbodies and avoid specifications with a high UV component, provided in the CEMP.	10.7.11 – 10.7.12	Contractor
TE 5	Invasive Non-Native Species	A pre-construction survey would be undertaken and a Biosecurity Management Plan produced to prevent the spread of invasive non-native species.	10.7.13	Contractor / ECoW
TE 6	Protected Mammals	Pre-construction surveys for otter, pine marten, red squirrel, badger, water vole or Scottish wildcat activity would be undertaken prior to tree felling and construction. Results would inform the need for further mitigation and requirements for any licences to be obtained in consultation with NatureScot (if required).	10.7.14, 10.7.23-10.7.26	Contractor / ECoW
TE 7	Otter Protection Measures (during construction)	Due to the presence of four otter lay-ups, and two potential (non-breeding) holts within the working corridor, a licence would be obtained from NatureScot prior to construction, including an up-to-date survey and an otter protection plan. During construction, good practice otter-protection measures that would be implemented include; Site speed limits of 15mph to reduce likelihood of accidental injury/killing of protected mammal species by construction traffic All excavations greater than 1 m depth would either be covered at night or designed to include a ramp to allow otters and other animals a means of escape should they fall in. An exclusion zone of a minimum of 30 m implemented for the retained otter couches/active badger set An exclusion zone of a minimum of 200 m for retained holt	10.7.15 10.7.23 – 10.7.26	Contractor / ECoW
TE 8	Good practice for protected species – red squirrel	Due to the presence of a red squirrel drey within the working corridor, a licence would be obtained from NatureScot prior to the commencement of works, including an up to date survey and a squirrel protection plan and a pre-construction survey to identify red squirrel drey.	10.7.16	ECoW

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
		If a red squirrel drey is used for breeding, it will not be destroyed, and no works will be completed within 50 m until completion of breeding. A compensatory artificial drey would then be installed, in agreement with NatureScot.		
TE 9	Good practice for protected species – bats	Bat roost surveys will be implemented prior to tree felling to gather data on current and additional trees that have been identified as having bat roosting potential (trees with PRFs). Licences would be obtained, and suitable mitigation provided, in consultation with NatureScot. If PRF's are identified, one bat box would be provided per PRF to be lost to provide alternative roosting habitat.	10.7.17 - 10.7.18	ECoW
TE 10	Good practice for protected species – reptiles	Proposed mitigation would involve vegetation management and identification/removal of potential refugia and hibernacula if present.	10.7.21 – 10.7.22	ECoW
TE 11	Direct habitat loss of qualifying interest habitat within and near Ness Woods SAC / Easter Ness Woods SSSI	To compensate for the loss of qualifying woodland habitat in the Ness Woods SAC, a Compensation Package would be delivered, as detailed in Section 4 of the Derogation Report, which has been developed in close consultation with NatureScot. The compensation package proposes habitat creation and management measures (including management of grazing, control of bracken and non-native species, and possible planting), to bring woodland up to SAC condition, allowing the SAC to be extended. Management of grazing and non-native species control would also be undertaken within land within Ness Woods SAC (with the potential to extend this management), to change the condition of the woodland from unfavourable to favourable.	10.9.3 – 10.9.5 Section 4: Compensation of the Loch Kemp Storage: Case for Derogation (Supporting Document)	ECoW
TE 12	Habitat Management outside the Ness Woods SAC	A Habitat Management Plan (HMP) would be produced, which would include extensive bog restoration, heathland restoration and management, and native woodland creation proposals. An Outline HMP (non-SAC) is provided in **Volume 4, Appendix 10.7.**	3.12.12, 10.9.6 Volume 4, Appendix 10.7: Outline HMP (non-SAC)	ECoW
Mitigation for Ornithology				

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
O 1	Bird Protection Measures	Construction (including enabling works and felling) should avoid being commenced in the breeding bird season (later March to end of July inclusive) to minimise disturbance to nesting birds. As the construction of the Proposed Development is anticipated to take approximately 5 years to complete, it would not be possible for all works to be undertaken outwith the breeding bird season. Where it is not possible to schedule all works out with the breeding bird season, the appointed ECoW, or suitably qualified ornithologist, would undertake pre-construction surveys to identify the presence of protected bird species and nests. Should a nest of any bird be located during pre-construction surveys, the EcoW would: Recommend suitable mitigation measures (including appropriate buffer zones depending on the species); Implement any Species Protection Plan (SPP) and provide toolbox talks to contractors to ensure accidental / reckless disturbance of the nesting bird is avoided; and Undertake regular monitoring of birds present within the proximity of works to ensure any nests are promptly located, identified and suitably protected from damage or disturbance.	11.8.2 – 11.8.4,	ECoW
O2	Habitat Management outside the Ness Woods SAC	A HMP would be produced, which would include extensive bog restoration, which would also improve habitat for a range of upland birds, potentially including curlew (*Numenius arquata*) and other breeding wader species. Heathland restoration/improved management would improve habitat for a range of bird species, including upland waders and raptors. An Outline HMP (non-SAC) is provided in **Volume 4, Appendix 10.7.**	Volume 4, Appendix 10.7: Outline HMP (non-SAC)	ECoW
Mitigation for Aquatic Ecology				
AE 1	Spread of Invasive Non-native Species	A CEMP, Pollution Prevention Plan (PPP) and Water Quality Monitoring Programme would be implemented and overseen by an Aquatic Ecologist / Aquatic Clerk of Works (ACoW). This will include Biosecurity measures which would protect against the spread of Invasive Non-native Species (INNS) during the construction phase.	12.7.2, 12.9.2 Volume 4, Appendix 3.3: Outline CEMP	Contractor / Aquatic Clerk of Works
AE2	Habitat Management for loch	A HMP would be produced, which would include the installation of Coarse woody debris (CWD) submerged around loch shoreline areas will create new habitats for loch macroinvertebrates. Areas for CWD submersion	12.7.7	Contractor / Aquatic Clerk of Works

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
	macroinvertebrates outside the Ness Woods SAC	would be confirmed in the final HMP and would comprise retained and lochs/lochans which are not subject to rapid water level changes, such as Lochan a Choin Uire, Loch Paiteag, Lochan a Mhonaich, Lochan nan Nighean and Lochan Scristan. An Outline HMP (non-SAC) is provided in **Volume 4, Appendix 10.7.**	Volume 4, Appendix 10.7: Outline HMP (non-SAC)	
Mitigation for Fish				
F 1	Construction Environmental Management	A CEMP, PPP and WQMP will be implemented and overseen by an Aquatic Ecologist (ACoW).	13.7.1, 13.9.1	Contractor / Aquatic Clerk of Works
F 2	Sentivitve Spawning and Migration Periods	Instream works would be avoided, where practical, during sensitive spawning and migration periods for fish. Sensitive periods are October – June to cover salmonid spawning, egg development in gravels, hatching and also the migration of salmon and sea trout smolts between mid-March – end June. Due to the programme of works, there are instances where instream works cannot be avoided during sensitive spawning and migration periods for fish and appropriate additional mitigation would be provided where this is the case.	13.7.3	Applicant / Aquatic Clerk of Works
F 3	Atrtraction/ entrainment/ Impingement of fish	The approach velocity of water across the intake screen during abstraction / pumping mode would be <0.3 m/s. This would ensure that most fish species would be able to overcome the effect of entrainment / impingement at the screens. Outflow would be diffused using vane structures on the outlets to spread the flow over a wider area to reduce the potential for attraction / entrainment / impingement of upstream migrating fish. Appropriately designed vertical bar screens of maximum 12.5 mm mesh aperture to cover the intake/outlet would be implemented to prevent fish from entering into the underground waterway system at Loch Ness and Loch Kemp. This would prevent the risks of fish entrapment, injury and mortality or translocation. The screens would require daily inspection and maintenance or a self-cleaning mechanism to prevent blockage / damage from foliage and debris.	13.7.4 - 13.7.6	Applicant

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
F 4	Fish Rescue and Relocation (during construction of Dams 1 and 4)	Fish rescue and relocation would be undertaken prior to the damming / dewatering of watercourses. This will protect resident trout populations in the vicinity of the works from harm.	13.9.2	Contractor / Aquatic Clerk of Works
F 5	Protecting resident trout populations (during construction and operation)	Installation of culvert on the Allt Leachd Gowerie for construction and operational access, would conform to the SEPA good practice guide on river crossings to allow fish passage through the culvert. Fish rescue and relocation would be undertaken prior to construction to protect resident trout populations.	13.7.11, 13.9.3	Contractor
F 6	Noise and vibration during cofferdam construction (Loch Ness)	A fish rescue should be undertaken within the enclosed cofferdam area prior to dewatering. Piling operations would adopt a 'soft start' approach to allow fish in the immediate vicinity of the works to disperse. For any piling or blasting operations, a temporary bubble curtain would be deployed around the works to attenuate noise effects and deter fish from the area. A fish rescue should be undertaken around any soft sediment areas, suitable for juvenile lamprey in the immediate vicinity of the works prior to piling to protect juvenile lamprey The ACoW should monitor loch areas in the vicinity of the works for any fish kills in relation to works producing underwater noise.	13.9.5, 13.9.7	Contractor / Aquatic Clerk of Works
F 7	Construction of lower control works (Loch Ness).	A fish rescue and relocation should be undertaken around any soft sediment areas suitable for juvenile lamprey within the works footprint.	13.9.6	Contractor
F 8	Construction Lighting (Loch Ness).	Any floodlighting used during construction should be directed away from loch edges and watercourses to prevent the risk of increased predation / fish displacement of fish during the hours of darkness.	13.9.9	Contractor
F 9	Attraction of fish to outlet during	An appropriately designed fish deterrent system would be installed which will deter fish from the outlet, prevent entrainment/impingement at the screens, delays to migration and reducing predation impacts.	13.9.10	Contractor

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
	generation (Loch Ness).			
F 10	Poaching	CCTV would be in operation at the outlet to deter and monitor instances of poaching.	13.9.11	Applicant
F 11	Mitigation during operation	A FMP will be implemented to monitor the impacts of the operational scheme on fish.	13.9.13	Contractor
F12	Habitat Management for loch macroinvertebrates outside the Ness Woods SAC	A HMP would be produced, which would include improving fish passage by opening up the channel on the Allt Paiteag between Loch Cluanie and the limit of maximum inundation. This would allow brown trout access to the upper reaches of the Allt Paiteag where spawning may take place. Spawning habitat could be improved in the upper reaches by the addition of gravel sized sediment and in-stream habitat could be improved by the addition of boulder sized sediment, providing cover for fish. CWD would be submerged around loch shoreline areas and secured in place to create new habitats for loch macroinvertebrates. Broadleaved trees removed during the construction of the Proposed Development can be reused for this purpose. This would also provide an added benefit for fish. Areas for CWD submersion would be confirmed in the final project Habitat Management Plan, and would comprise lochs/lochans which are not subject to rapid water level changes, such as such as Lochan a Choin Uire, Loch Paiteag, Lochan a Mhonaich, Lochan nan Nighean and Lochan Scristan. An Outline HMP (non-SAC) is provided in **Volume 4, Appendix 10.7.**	13.10.1-13.10.3 Volume 4, Appendix 10.7: Outline HMP (non-SAC)	Contractor / Aquatic Clerk of Works
Mitigation for Geology, Soil and Water				
GSW 1	Water Quality	Prior to any construction occurring, a CAR application would be made, containing details of proposed construction methods, and safeguards to protect the water environment. Works would only commence once these details have been agreed with SEPA in consultation with statutory consultees. The CAR authorisation(s) would also ensure navigation and fisheries interests are not impaired.	14.7.4 - 14.7.6	Applicant

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
GSW 2	Peat Management	A Peat Management Plan would be prepared at pre-construction stage, following further site and ground investigation works, which would provide further detail on how peat would be managed and re-used on site. This would be secured by a condition of consent and prepared in consultation with THC and SEPA. A Draft Peat Management Plan (PMP) is included in **Volume 4, Appendix 14.1**.	3.12.4, 14.7.8 Volume 4, Appendix 14.1: Peat Management Plan	Contractor
GSW 3	Peat Landslide	A Design and Geotechnical Risk Register would be compiled to include risks relating to peat instability, as this would be beneficial to both the developer and the Contractor in identifying potential risks that may be involved during construction. Good construction practice and methodologies to prevent peat instability within areas that contain peat deposits are identified in **Volume 4, Appendix 14.2: Peat Landslide Hazard Risk Assessment**.	14.7.10, 14.7.11 Volume 4, Appendix 14.2: Peat Landslide Hazard Risk Assessment.	Contractor
GSW 4	Water Quality Monitoring	Water quality monitoring during the construction phase would be undertaken for the surface water catchments that drain from the Site Boundary to ensure that none of the tributaries of the main channels are carrying pollutants or suspended solids. Monitoring would be carried out at a specified frequency (depending upon the construction phase) on these catchments.	14.7.28 – 14.7.31	Contractor
GSW 5	Pollution Risk	Good practice measures in relation to pollution prevention would include the following (and which would also be included in the works information for the project: refuelling would take place at least 50 m from watercourses; foul water generated on-site would be managed in accordance with PPG4; areas would be designated for production of concrete or washout of vehicles which are a minimum distance of 50 m from a watercourse; washout water would also be stored in the washout area before being treated and disposed of, or re-used in concrete production; if any water is contaminated with silt or chemicals, runoff would not enter a watercourse directly or indirectly prior to treatment;	14.7.32 – 14.7.33	Contractor

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
		water would be prevented as far as possible, from entering excavations such as trenches and foundations; procedures would be adhered to for storage of fuels and other potentially contaminative materials in line with the Controlled Activity Regulations, to minimise the potential for accidental spillage; and a plan for dealing with spillage incidents would be designed prior to construction, and this would be adhered to should any incident occur, reducing the effect as far as practicable. This would be included in the final CEMP for the Proposed Development.		
GSW 6	Sedimentation and Erosion during construction works	Good practice measures for the management or erosion and sedimentation would include the following; all stockpiled materials would be located outwith a 50 m buffer from watercourses; water would be prevented, as far as possible, from entering excavations such as trenches and foundations through the use of appropriate cut-off drainage; where the above is not possible, water would pass through silt/sediment traps to remove silt prior to discharge into the surrounding drainage system; clean and dirty water on-site would be separated, and dirty water would be filtered before entering the water environment; silt fences would be deployed as required to reduce sediment transport; the amount of ground exposed, and time period during which it is exposed, would be kept to a minimum; silt/sediment traps, single size aggregate, geotextiles or straw bales would be used to filter any coarse material and prevent increased levels of sediment. Further to this, activities involving the movement or use of fine sediment would avoid periods of heavy rainfall where possible; and the ECoW and the Principal Contractor would carry out regular visual inspections of watercourses to check for suspended solids in watercourses downstream of work areas.	14.7.39	Contractor / ECoW
GSW 7	Fluvial Flood Risk	During construction, a wet weather working protocol would be used. This would restrict working in potential flood prone areas (for example in the inundation area or adjacent to watercourses), reducing the risk to workers and machinery.	14.7.40 – 14.7.43	Contractor

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
		It is proposed to adopt Sustainable Drainage Systems (SuDS) as part of the Proposed Development. SuDS techniques aim to mimic pre-development runoff conditions and balance or throttle flows to the rate of runoff that might have been experienced prior to development. Further information on drainage designs would be provided in a Drainage Impact Assessment (DIA) which would form part of the final CEMP.		
GSW 8	Permenant Watercourse Crossings	Good practice in relation to new water crossings would be implemented, involving; the design of the watercourse crossings would be agreed with SEPA prior to construction and be regulated in accordance with CAR; the appropriate crossing type would be identified from SEPA's good practice guidance and would take into account any ecological and hydrological constraints; and the crossing would be sized and designed so as to minimise effect upon flood risk (sized to accommodate at least the 200 year flow). A schedule of watercourse crossings is included within **Volume 4, Appendix 14.3: Schedule of Watercourse Crossings**. The crossings would be designed to pass the 200-yr flood event and would be agreed upon by SEPA and THC as part of the final CEMP	14.7.56 – 14.7.57 Volume 4, Appendix 14.3: Schedule of Watercourse Crossings	Applicant / Contractor / ECoW
GSW 9	Water Supply and Foul Water Management	During construction, all foul water generated from the welfare facilities would be collected and either treated on site using a package water treatment plant to a standard agreed with SEPA, or removed from site for treatment and disposal at an appropriately licensed facility.	14.7.37	Contractor
Mitigation for Cultural Heritage				
CH 1	Micrositing	Any identified heritage asset or feature that falls within or close to a revised working area or access route would be marked out and avoided. Associated infrastructure, including forestry felling works, would be located away	15.10.3 – 15.10.6	ACoW / Contractor

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
		from heritage assets where possible. Known heritage assets and archaeologically sensitive areas, would not be used for storage of material or as parking areas for vehicles or machinery.		
CH 2	Watching Briefs	The Applicant would seek to agree the scope of the archaeological watching brief(s) with THC in advance of development works (e.g., forestry felling activity and construction phase). The scope of the agreed works would be confirmed in a Written Scheme of Investigation (WSI) to be signed-off prior to commencement of work on-site, including any required enabling works.	15.10.7 – 15.10.10	Archaeological Clerk of Works / Contractor
CH 3	Post Excavation Assessment and Reporting	If new, archaeologically significant discoveries are made during archaeological monitoring, and it is not possible to preserve the discovered features in situ, provision will be made for the excavation where necessary, of any archaeological deposits encountered. The provision will include the consequent production of written reports, on the findings, with post-excavation analysis and publication of the results of the works, where appropriate.	15.10.11	Archaeological Clerk of Works / Contractor
Mitigation for Access, Traffic and Transport				
T 1	Construction Traffic Management	A Construction Traffic Management Plan (CTMP) would be prepared and implemented during the construction phase. The CTMP would be agreed with The Highland Council.	16.11.1 – 16.11.5 Volume 4, Appendix 16.1: Transport Assessment	Contractor/ Applicant
T 2	Abnormal Loads	All abnormal load deliveries would be undertaken at appropriate times (to be discussed and agreed with the relevant roads authorities and police) with the aim to minimise the effect on local road networks.	16.11.6 – 16.11.14 Volume 4, Appendix 16.1: Transport Assessment	Contractor/ Applicant
T 3		An Abnormal Load Transport Management Plan would be implemented, including procedures for liaising with the emergency services to ensure that police, fire and ambulance are not impeded by the loads	16.11.14	Contractor/ Applicant

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
T 4	Canal Management Plan	A Canal Management Plan would be produced, in collaboration with Scottish Canals, to manage the Proposed Development's construction traffic which will be delivered to the Site via the Caledonian Canal.	9.9.7 16.11.22, 20.8.5 Volume 4, Appendix 16.1: Transport Assessment	Contractor / Applicant
Noise and Vibration				
NV 1	Construction Noise and Vibration	Construction noise and vibration emissions would be managed through a Construction Noise and Vibration Management Plan (CNVMP), agreed with The Highland Council prior to construction work commencing. Best practice measures will be implemented through the CNVMP, with consideration for guidance as defined in BS5228-1. An outline of the CNVMP is provided in **Volume 4, Appendix 17.3.** A temporary timber acoustic barrier along the south side of the access track is recommended to reduce impact of noise to NSR 4 and other residents in Easter Drummond during construction.	3.13.4, 17.9.0 – 17.9.10 Volume 4, Appendix 17.3: Construction Noise and Vibration Management Plan	Applicant
Air Quality (See Chapter 18)				
AQ 1	Air quality and pollution (dust)	A CEMP would be prepared by the appointed Principal Contractor. The CEMP would apply to all construction activities required as part of the Proposed Development. In particular, the CEMP would specify conditions to limit fugitive dust emissions.	10.7.7,18.9.1 Volume 4, Appendix 3.3: Outline CEMP	Contractor
AQ 2	Dust deposition on Ness Woods SAC/ Easter Ness Forest SSSI	To minimise potential effects of deposited dust on ecological receptors in the SAC/SSSI, additional dust control measures would be implemented, in accordance with the IAQM guidance as captured in the CEMP and Dust Management Plan.	10.7.7, 18.9.2 – 18.9.3 Table 18.22, Volume 4, Appendix 3.3: Outline CEMP	Contractor

Ref.	Issue	Mitigation / Monitoring Measure	EIA Report Reference	Responsibility
AQ 3	Non-Road Mobile Machinery (NMRR)	Construction phase control measures should be implemented to minimise NRMM emissions associated with construction. NRMM impacts on the SAC/SSSI are not considered significant, in accordance with the Scottish Government and IAQM.	18.9.5 – 18.9.6	Contractor
Mitigation for Forestry				
F	Good Practice Measures	All forestry plans and operations would comply with the UK Forestry Standard, and all forestry operations would comply with Best Practice guidance.	19.7.5 – 19.7.7	Applicant / Contractor
F	Compensatory Planting	A Compensatory Planting Plan has been prepared to mitigate the woodland removal arising from the Proposed Development, including the loss of non-commercial woodland.	19.10.1 – 19.10.6 Volume 4, Appendix 19.2: Loch Kemp Pumped Storage Woodland Management	Applicant / Specialist
F	Management Plan	During construction, a Forest Manager will implement the Management Plan to ensure all woodland management works are carried out to meet the requirements of the UKFS and other appropriate guidance.	19.10.8, 19.10.9	Applicant / Specialist
Mitigation for Socio-economics and Tourism (See Chapter 20)				
SE	Local Economy and Employment Opportunities	The Applicant has committed to maximise the economic opportunities for the local area and business and communities in the Highland Council area, where possible, as it does with all its schemes in the UK. In all cases lead contractors are strongly encouraged to use local suppliers where they have the competency and are competitive as part of the supply chain.	20.8.1 - 20.8.2	Applicant